and, if required, ~~structuring of~~ corrugating at least a portion of the section;

e) if required, separating the section from the supply roll;

f) repeating steps a) to f) for forming the predetermined number of the sheet metal layers;

g) if required, stacking the predetermined number of the sheet metal layers corresponding to an identification of the sheet metal layers;

h) if required, repeating steps a) to h) for producing at least two sheet metal stacks;

i) winding at least one of the sheet metal layer and at least one of the sheet metal stacks to form a honeycomb structure with smooth and corrugated sheet metal layers forming channels through which a fluid can flow;

j) introducing the honeycomb structure into a casing tube;

k) introducing the measurement sensor at a predetermined position into the honeycomb structure and the casing tube; and

1) carrying out the steps d) and e) in any desired sequence order.

Claim 2 (original): The method according to claim 1, which further comprises choosing the associated hole position and the associated hole edge in each of the sheet metal layers such that a cohesive cavity is produced in the honeycomb body, the cohesive cavity having a volume corresponding substantially at least to a volume of the measurement sensor introduced into the honeycomb body.

Claim 3 (original): The method according to claim 2, which further comprises setting dimensions of the hole in the sheet metal layer to be larger by a predetermined tolerance value than a section surface area of the measurement sensor.

Claim 4 (original): The method according to claim 1, which further comprise determining at least one of the associated hole position and the associated hole edge from a section surface area of the measurement sensor with the sheet metal layer in a wound state.

Claim 5 (original): The method according to claim 1, which further comprises deriving at least one of the associated hole position and the associated hole edge from a mathematical

model calculation before storing values for the associated hole position and the associated hole edge.

Claim 6 (original): The method according to claim 1, which further comprises determining at least one of the associated hole position and the associated hole edge on a basis of empirical values before storing values for the associated hole position and the associated hole edge.

Claim 7 (original): The method according to claim 1, which further comprises adapting stored values for the associated hole position and the associated hole edge on a basis of actual tolerance values between the measurement sensor and a boundary of the predetermined cohesive free volume.

Claim 8 (original): The method according to claim 1, which further comprises forming the hole such that a cross section of the predetermined cohesive free volume allows an introduction of the measurement sensor having a shape selected from the group consisting of a circular shape, an oval shape, a polygonal cross sectional shape and a quadrilateral cross sectional shape.

Claim 9 (original): The method according to claim 7, which further comprises forming the associated hole edge to be substantially oval shaped.

Claim 10 (original): The method according to claim 1, which further comprises using one of a lambda probe and an HC sensor as the measurement sensor.

Claim 11 (withdrawn): An apparatus for producing a honeycomb body having a cohesive free volume for holding an integrated measurement sensor, the honeycomb body formed from sheet metal layers and at least some of said sheet metal layers being at least partially structured with structures allowing a fluid to flow through the honeycomb body, the apparatus comprising:

an identification unit for identifying a sheet metal layer with respect to its later position in the honeycomb body;

a memory for storing at least one hole edge position and at least one hole position for each of the sheet metal layers in the honeycomb body;

a perforation unit having a perforation tool;

a stacking and winding unit disposed downstream of said perforation unit; and

signal lines connecting said memory to said perforation unit for transmitting at least the hole edge position and the hole position, said signal lines further connecting said identification unit to said perforation unit.

Claim 12 (withdrawn): The apparatus according to claim 11, wherein at least one of the hole position and the hole edge position is determined from a section surface area of the measurement sensor with respect to the sheet metal layers in a wound state.

Claim 13 (withdrawn): The apparatus according to claim 12, wherein the measurement sensor has a shaped selected from the group consisting of a circular shape, an oval shape, a polygonal cross sectional shape and a quadrilateral cross sectional shape.

Claim 14 (withdrawn): The apparatus according to claim 11, wherein said perforation tool produces a substantially oval hole.

Claim 15 (withdrawn): The apparatus according to claim 11, further comprising:

a structuring tool disposed downstream of said perforation unit; and

a reduction tool disposed downstream of said perforation unit.

Claim 16 (withdrawn): A honeycomb body, comprising:

a measurement sensor; and

sheet metal layers forming a body structure, at least some of said sheet metal layers being at least partially structured with structures allowing a fluid to flow through said body structure, said body structure having a cohesive free volume receiving said measurement sensor.

Claim 17 (withdrawn): The honeycomb body according to claim 16, wherein said body structure has a longitudinal extend in a flow direction and said measurement sensor is formed in a first 50% of said longitudinal extent of said body structure.

Claim 18 (withdrawn): The honeycomb body according to claim 16, wherein:

said body structure has a given diameter; and

said measurement sensor has a recess length in said body structure being less than 25% of said given diameter.

Claim 19 (withdrawn): The honeycomb body according to claim 16, wherein said measurement sensor is selected from the group consisting of a lambda probe and an HC sensor.

Claim 20 (withdrawn): The honeycomb body according to claim 16, wherein said body structure has a longitudinal extent in a flow direction and said measurement sensor is formed in a first 30% of said longitudinal extent of said body structure.

Claim 21 (withdrawn): The honeycomb body according to claim 16, wherein said body structure has a longitudinal extent in a flow direction and said measurement sensor is formed in a first 15% of said longitudinal extent of said body structure.

Claim 22 (withdrawn): The honeycomb body according to claim 16, wherein:

said body structure has a given diameter; and

said measurement sensor has a recess length in said body structure being less than 20% of said given diameter.

Claim 23 (cancelled).